

What is claimed is:

1 1. A heat dissipation structure for a backlight
2 module comprising a circuit board having a through hole
3 with a light emitting diode (LED) corresponding thereto,
4 disposed on one side of the circuit board, comprising:

5 a heat conducting portion thermo-conductively
6 connected to the LED and positioned in the
7 through hole;

8 a thermal conductive element disposed between the
9 heat conducting portion and the LED; and

10 a heat dissipating portion thermo-conductively
11 connected to the heat conducting portion.

1 2. The heat dissipation structure as claimed in
2 claim 1, wherein the thermal conductive element contacts
3 the heat conducting portion and the LED.

1 3. The heat dissipation structure as claimed in
2 claim 2, wherein the thermal conductive element comprises
3 a thermal conductive pad.

1 4. The heat dissipation structure as claimed in
2 claim 2, wherein the thermal conductive element comprises
3 a layer of thermal conductive paste.

1 5. The heat dissipation structure as claimed in
2 claim 1, wherein the heat conducting portion and the heat
3 dissipating portion are integrally formed.

1 6. The heat dissipation structure as claimed in
2 claim 1, wherein the heat conducting portion comprises a
3 heat conducting column.

1 7. The heat dissipation structure as claimed in
2 claim 1, wherein the heat dissipation portion comprises a
3 heat dissipation plate.

1 8. The heat dissipation structure as claimed in
2 claim 1, wherein the heat conducting portion and the heat
3 dissipation portion are made of metal.

1 9. The heat dissipation structure as claimed in
2 claim 1, wherein the heat conducting portion and the heat
3 dissipation portion are made of engineering plastic.

1 10. A backlight module, comprising:

2 a housing;

3 a circuit board having a plurality of through holes
4 and disposed on the housing;

5 a plurality of light emitting diodes (LEDs)
6 corresponding to the through holes and disposed
7 on and electrically connected to the circuit
8 board;

9 a plurality of heat conducting portions thermo-
10 conductively connected to the LEDs and disposed
11 in the through holes;

12 a plurality of thermal conductive elements disposed
13 between the LEDs and the heat conducting
14 portions; and

15 at least one heat dissipation portion thermo-
16 conductively connected to the heat conducting
17 portions and positioned between the circuit
18 board and the housing.

1 11. The backlight module as claimed in claim 10,
2 wherein the heat dissipation portion contacts the
3 housing.

1 12. The backlight module as claimed in claim 10,
2 wherein the thermal conductive element contacts the heat
3 conducting portion and the LED.

1 13. The backlight module as claimed in claim 12,
2 wherein the thermal conductive element comprises a
3 thermal conductive pad.

1 14. The backlight module as claimed in claim 12,
2 wherein the thermal conductive element comprises a layer
3 of thermal conductive paste.

1 15. The backlight module as claimed in claim 10,
2 wherein the heat conducting portion and the heat
3 dissipating portion are integrally formed.

1 16. The backlight module as claimed in claim 10,
2 wherein the heat conducting portion comprises a heat
3 conducting column.

1 17. The backlight module as claimed in claim 10,
2 wherein the heat dissipation portion comprises a heat
3 dissipation plate.

1 18. The backlight module as claimed in claim 10,
2 wherein the heat conducting portion and the heat
3 dissipation portion are made of metal.

1 19. The backlight module as claimed in claim 10,
2 wherein the heat conducting portion and the heat
3 dissipation portion are made of engineering plastic.